



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/727,780
Source: FW9
Date Processed by STIC: 10/13/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

~~TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER~~
~~VERSION 4.2 PROGRAM ACCESSIBLE THROUGH THE U.S. PATENT AND~~
~~TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:~~

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>) , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box-1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 1e/727,780

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWO

RAW SEQUENCE LISTING

DATE: 10/13/2004

PATENT APPLICATION: US/10/727,780

TIME: 09:57:16

Input Set : D:\MBHB03-1070Sequence Listing.txt

Output Set: N:\CRF4\10132004\J727780.raw

3 <110> APPLICANT: Vaish, Narendra
 4 Zinnen, Shawn
 5 McSwiggen, James
 6 Sirna Therapeutics, Inc.
 8 <120> TITLE OF INVENTION: Inhibition of Gene Expression Using Duplex Forming
 9 Oligonucleotides
 11 <130> FILE REFERENCE: 03-1070 (400.139)
 13 <140> CURRENT APPLICATION NUMBER: US 10/727,780
 C--> 14 <141> CURRENT FILING DATE: 2003-12-03
 16 <160> NUMBER OF SEQ ID NOS: 772
 20 <170> SOFTWARE: PatentIn version 3.3
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 19
 24 <212> TYPE: RNA
 25 <213> ORGANISM: Artificial Sequence
 27 <220> FEATURE:
 28 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
 31 <400> SEQUENCE: 1
 32 uccuaggacc ccugcucgu
 35 <210> SEQ ID NO: 2
 36 <211> LENGTH: 19
 37 <212> TYPE: RNA
 38 <213> ORGANISM: Artificial Sequence
 40 <220> FEATURE:
 41 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
 44 <400> SEQUENCE: 2
 45 gagucuagac ucguggugg
 48 <210> SEQ ID NO: 3
 49 <211> LENGTH: 19
 50 <212> TYPE: RNA
 51 <213> ORGANISM: Artificial Sequence
 53 <220> FEATURE:
 54 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
 57 <400> SEQUENCE: 3
 58 gugcacuucg cuucaccuc
 61 <210> SEQ ID NO: 4
 62 <211> LENGTH: 19
 63 <212> TYPE: RNA
 64 <213> ORGANISM: Artificial Sequence
 66 <220> FEATURE:
 67 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
 70 <400> SEQUENCE: 4
 71 gccauggcgu uaguaugag

1-6
 Does Not Comply
 Corrected Diskette Needed

give source of genetic material
 (see item 11 on Enva summary sheet)

19

19

19

19

RAW SEQUENCE LISTING

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TIME: 09:57:16

Input Set : D:\MBHB03-1070Sequence Listing.txt

Output Set: N:\CRF4\10132004\J727780.raw

```

74 <210> SEQ ID NO: 5
75 <211> LENGTH: 19
76 <212> TYPE: RNA
77 <213> ORGANISM: Artificial Sequence
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
83 <400> SEQUENCE: 5
84 cucccgaggag agccauagu
87 <210> SEQ ID NO: 6
88 <211> LENGTH: 19
89 <212> TYPE: RNA
90 <213> ORGANISM: Artificial Sequence
92 <220> FEATURE:
93 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
96 <400> SEQUENCE: 6
97 accggugagu acaccgga
100 <210> SEQ ID NO: 7
101 <211> LENGTH: 19
102 <212> TYPE: RNA
103 <213> ORGANISM: Artificial Sequence
105 <220> FEATURE:
106 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
109 <400> SEQUENCE: 7
110 cccgggaggu cucguagac
113 <210> SEQ ID NO: 8
114 <211> LENGTH: 19
115 <212> TYPE: RNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
122 <400> SEQUENCE: 8
123 uuuaaaaggc acccagcac
126 <210> SEQ ID NO: 9
127 <211> LENGTH: 19
128 <212> TYPE: RNA
129 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Description of Artificial Sequence: Palindromic Sequence
135 <400> SEQUENCE: 9
136 auauauauga uaaagcauu
139 <210> SEQ ID NO: 10
140 <211> LENGTH: 27
141 <212> TYPE: RNA
142 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
igonucleotide
147 <220> FEATURE:
148 <221> NAME/KEY: misc_feature
149 <222> LOCATION: (1)..(1)

```

RAW SEQUENCE LISTING

DATE: 10/13/2004

PATENT APPLICATION: US/10/727,780

TIME: 09:57:16

Input Set : D:\MBHB03-1070Sequence Listing.txt

Output Set: N:\CRF4\10132004\J727780.raw

150 <223> OTHER INFORMATION: 5'-attached phosphate group
 152 <220> FEATURE:
 153 <221> NAME/KEY: misc_feature
 154 <222> LOCATION: (27)..(27)
 155 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
 159 <400> SEQUENCE: 10
 160 aaugcuuuau cauauauaug auaaagc 27
 163 <210> SEQ ID NO: 11
 164 <211> LENGTH: 25
 165 <212> TYPE: RNA
 166 <213> ORGANISM: Artificial Sequence
 168 <220> FEATURE:
 169 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
 igonucleotide
 171 <220> FEATURE:
 172 <221> NAME/KEY: misc_feature
 173 <222> LOCATION: (1)..(1)
 174 <223> OTHER INFORMATION: 5'-attached phosphate
 176 <220> FEATURE:
 177 <221> NAME/KEY: misc_feature
 178 <222> LOCATION: (25)..(25)
 179 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
 183 <400> SEQUENCE: 11
 184 aaugcuuuau cauauaugau aaagc 25
 187 <210> SEQ ID NO: 12
 188 <211> LENGTH: 23
 189 <212> TYPE: RNA
 190 <213> ORGANISM: Artificial Sequence
 192 <220> FEATURE:
 193 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
 igonucleotide
 195 <220> FEATURE:
 196 <221> NAME/KEY: misc_feature
 197 <222> LOCATION: (1)..(1)
 198 <223> OTHER INFORMATION: 5'-attached phosphate group
 200 <220> FEATURE:
 201 <221> NAME/KEY: misc_feature
 202 <222> LOCATION: (23)..(23)
 203 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
 207 <400> SEQUENCE: 12
 208 aaugcuuuau cauauaugaua agc 23
 211 <210> SEQ ID NO: 13
 212 <211> LENGTH: 24
 213 <212> TYPE: RNA
 214 <213> ORGANISM: Artificial Sequence
 216 <220> FEATURE:
 217 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
 igonucleotide
 219 <220> FEATURE:
 220 <221> NAME/KEY: misc_feature
 221 <222> LOCATION: (1)..(1)
 222 <223> OTHER INFORMATION: 5'-attached phosphate group

RAW SEQUENCE LISTING

DATE: 10/13/2004

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Input Set : D:\MBHB03-1070Sequence Listing.txt

Output Set: N:\CRF4\10132004\J727780.raw

224 <220> FEATURE:
 225 <221> NAME/KEY: misc_feature
 226 <222> LOCATION: (24)..(24)
 227 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
 231 <400> SEQUENCE: 13
 232 aaugcuuuau caaugauaa agca 24
 235 <210> SEQ ID NO: 14
 236 <211> LENGTH: 28
 237 <212> TYPE: RNA
 238 <213> ORGANISM: Artificial Sequence
 240 <220> FEATURE:
 241 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
 lignonucleotide
 243 <220> FEATURE:
 244 <221> NAME/KEY: misc_feature
 245 <222> LOCATION: (1)..(1)
 246 <223> OTHER INFORMATION: 5'-attached phosphate
 248 <220> FEATURE:
 249 <221> NAME/KEY: misc_feature
 250 <222> LOCATION: (28)..(28)
 251 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
 255 <400> SEQUENCE: 14
 256 aaugcuuuau cauaaugau aaagcau 28
 259 <210> SEQ ID NO: 15
 260 <211> LENGTH: 21
 261 <212> TYPE: RNA
 262 <213> ORGANISM: Artificial Sequence
 264 <220> FEATURE:
 265 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
 lignonucleotide
 267 <220> FEATURE:
 268 <221> NAME/KEY: misc_feature
 269 <222> LOCATION: (1)..(1)
 270 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
 272 <220> FEATURE:
 273 <221> NAME/KEY: misc_feature
 274 <222> LOCATION: (1)..(3)
 275 <223> OTHER INFORMATION: 2'-deoxy
 277 <220> FEATURE:
 278 <221> NAME/KEY: misc_feature
 279 <222> LOCATION: (4)..(5)
 280 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro
 282 <220> FEATURE:
 283 <221> NAME/KEY: misc_feature
 284 <222> LOCATION: (6)..(8)
 285 <223> OTHER INFORMATION: 2'-deoxy
 287 <220> FEATURE:
 288 <221> NAME/KEY: misc_feature
 289 <222> LOCATION: (9)..(11)
 290 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro
 292 <220> FEATURE:

RAW SEQUENCE LISTING

DATE: 10/13/2004

PATENT APPLICATION: US/10/727,780

TIME: 09:57:16

Input Set : D:\MBHB03-1070Sequence Listing.txt

Output Set: N:\CRF4\10132004\J727780.raw

293 <221> NAME/KEY: misc_feature
 294 <222> LOCATION: (12)..(17)
 295 <223> OTHER INFORMATION: 2'-deoxy
 297 <220> FEATURE:
 298 <221> NAME/KEY: misc_feature
 299 <222> LOCATION: (18)..(18)
 300 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro
 302 <220> FEATURE:
 303 <221> NAME/KEY: misc_feature
 304 <222> LOCATION: (19)..(19)
 305 <223> OTHER INFORMATION: 2'-deoxy
 307 <220> FEATURE:
 308 <221> NAME/KEY: misc_feature
 309 <222> LOCATION: (20)..(21)
 310 <223> OTHER INFORMATION: n stands for thymidine
 312 <220> FEATURE:
 313 <221> NAME/KEY: misc_feature
 314 <222> LOCATION: (21)..(21)
 315 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
 319 <400> SEQUENCE: 15

W--> 320 gaacugaguu uaaaaggcan n

323 <210> SEQ ID NO: 16

324 <211> LENGTH: 21

325 <212> TYPE: RNA

326 <213> ORGANISM: Artificial Sequence

328 <220> FEATURE:

329 <223> OTHER INFORMATION: Description of Artificial Sequence: Duplex Forming
 Oligonucleotide

331 <220> FEATURE:

332 <221> NAME/KEY: misc_feature

333 <222> LOCATION: (1)..(1)

334 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro

336 <220> FEATURE:

337 <221> NAME/KEY: misc_feature

338 <222> LOCATION: (3)..(8)

339 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro

341 <220> FEATURE:

342 <221> NAME/KEY: misc_feature

343 <222> LOCATION: (12)..(14)

344 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro

346 <220> FEATURE:

347 <221> NAME/KEY: misc_feature

348 <222> LOCATION: (16)..(18)

349 <223> OTHER INFORMATION: 2'-deoxy-2'-fluoro

351 <220> FEATURE:

352 <221> NAME/KEY: misc_feature

353 <222> LOCATION: (20)..(21)

354 <223> OTHER INFORMATION: n stands for thymidine

356 <220> FEATURE:

357 <221> NAME/KEY: misc_feature

is not present in an RNA
 sequence. If the sequence
 is a combined DNA/RNA, use
 <212> DNA, and explain in
 <220>-<223> section

same error

Please check if

The types of errors shown exist throughout
 the Sequence Listing. Please check subsequent
 sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/727,780

DATE: 10/13/2004
TIME: 09:57:17

Input Set : D:\MBHB03-1070Sequence Listing.txt
Output Set: N:\CRF4\10132004\J727780.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:15; N Pos. 20,21
Seq#:16; N Pos. 20,21
Seq#:17; N Pos. 20,21
Seq#:18; N Pos. 20,21
Seq#:19; N Pos. 20,21
Seq#:20; N Pos. 20,21
Seq#:21; N Pos. 20,21
Seq#:22; N Pos. 20,21
Seq#:23; N Pos. 20,21
Seq#:24; N Pos. 20,21
Seq#:25; N Pos. 20,21
Seq#:26; N Pos. 20,21
Seq#:27; N Pos. 20,21
Seq#:28; N Pos. 20,21
Seq#:29; N Pos. 20,21
Seq#:30; N Pos. 20,21
Seq#:40; N Pos. 25,26
Seq#:46; N Pos. 29,30
Seq#:49; N Pos. 27
Seq#:50; N Pos. 27,28
Seq#:772; N Pos. 23,24

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/727,780

DATE: 10/13/2004

TIME: 09:57:17

Input Set : D:\MBHB03-1070Sequence Listing.txt

Output Set: N:\CRF4\10132004\J727780.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:364 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:531 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:608 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:821 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1077 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1226 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:1332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:11280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:772 after pos.:0